

Internally Displaced Camps in Lira and Pader Northern Uganda

A Baseline Health Survey

Preliminary Report

***“Sick one day, and dead the next.
It is scary, if this person can die, what about me?”***
(Mother of 9, Aloi camp)

MSF-Holland, Uganda
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Executive Summary

MSF-Holland undertook a baseline health survey in October within 6 internally displaced camps; five rural camps out of 24 in Lira district and 1 in Pader Town Centre out of 24 in Pader district. The results that follow depict a humanitarian emergency on many indicators, mortality in particular. It is even more worrying considering that the camps surveyed have been established for at least 11 months, and yet people continue to die from preventable diseases. Also, it is important to note that given MSF activities within these camps have been ongoing for months, the situation in other camps with fewer services could potentially be worse.

Undoubtedly, the population needs protection and humanitarian interventions to ensure access to services that are essential for life. Urgent action is therefore required to prevent further suffering and death.

This report highlights the main findings of the survey as a preliminary report only. Due to the critical nature of the results, it was decided to circulate this preliminary report, with a final report to be available by the end of November.

Mortality

Alarming mortality rates are classified as an **emergency out of control**, and are completely unacceptable at this time after population displacement;

- Crude Mortality Rate 2.79/10,000/day
- Under Five Mortality Rate 5.4/10,000/day
- Agweng had the highest death rates with CMR 4.33/10,000/day and U5M a staggering 10.46/10,000/day

Morbidity

Malaria is the main cause of morbidity, accounting for a significant 47% and 51% of total and under 5 morbidity respectively, second and third causes of morbidity include;

- Respiratory disease 28%
- Diarrhoeal disease 21%

Mortality related to the insurgency

There was a peak in deaths related to the insurgency in November 2003. This has continued with deaths reported up to the month before the survey, September 2004. It is still not safe for the camp population to supplement the general food distribution ration by accessing their fields.

Protection

The households surveyed still live under the threat of insecurity with;

- 56% households not feeling safe within the camp
- 39% households not feeling safe to use a latrine at night
- 64% households not feeling safe to go outside the camp to cultivate or collect water

Household food security

The level of household food insecurity highlights the vulnerability of the camp population who often have to prioritise looking for food over other activities, including risking their own lives;

- 8% of households had no food supplies in the house
- 56% had enough food for 1 day only

Anthropometric measurement

- Rate of severe acute malnutrition 4.40% [95% CI 3.13-5.68%]
- Rate of global acute malnutrition 8.28% [95% CI 6.53-10.03%]

Water and sanitation

Despite considerable water and sanitation intervention from MSF and other agencies in 5 of the 6 sites, water and sanitation indicators remain considerably below agreed international benchmarks, with households on average;

- Collect 7.5L/person/day overall, and 5.8L in Aromo, which is less than half the amount considered as a minimum standard (20L)
- Walk 27 minutes, twice a day to the water source,
- Queue 151 minutes at the source
- 15% total households and 42% of households in Pader being charged for water
- 21% do not have access to latrines

Future plans

When asked about intentions if the war ended tomorrow a high number of respondents indicated they would not return home immediately;

- 30% of households would go home immediately
- 63% households would wait in current location
- 8% households would stay in current location

Introduction

Northern Uganda has experienced an internal conflict for over 18 years. This has resulted in the displacement of more than 1.6 million people who continue to live in what has been described as one of the worst humanitarian emergencies in the world. Despite this title, and recent international attention, assistance to the population remains grossly inadequate.

Pader district is a new district created in 2001 in the midst of the conflict and has had little time to develop basic infrastructure. The population of 290,000 are all currently living in one of the 24 camps present in the district. The mass movement into camps in late 2002 was either spontaneous fleeing from violence or by government order, at which time there was only one camp in the district. Pader is considered the least known about and one of the worst affected districts.

In Lira District, approximately 210,000 or eighty percent of the rural population is living in one of 24 camps. The majority have been living in these camps since late 2003 as the result of the LRA sweeping through the rural areas and committing a wide array of human rights abuses against the population, forcing them to flee from their homes. Many in the population sought refuge in Lira town in late 2003, and since then there has been movement back to the rural camps.

All camps surveyed have been established for at least 11 months, yet services essential for life including security, water, food, sanitation and health care are completely inadequate. The extent of continual suffering is overwhelming; with health and nutritional indicators still exceeding emergency thresholds. The effects are particularly acute in children under five years of age, with the mortality rate over the previous month reaching 5.4/10,000/day.

MSF is currently working in all of the camps that were surveyed, in some for as long as 9 months. MSF chose to work in these sites, precisely because they were seen as the most vulnerable, so the high death rates are not unexpected. However, other camps without government services or NGO's presence could potentially be worse.

Initially, MSF's health and nutrition interventions in the rural camps were limited to mobile clinics due to widespread insecurity. The limitation of the mobile strategy meant that the medical teams had little time for consultations in the camps, resulting in only the sickest children under 5 seen. As soon as security permitted in August 2004, 4 fixed health clinics were established in Aloi, Aromo, Amugu and Pader town centre, with national and expatriate medical teams staying overnight in the camps. This served the dual purpose of increasing access to health care and proximity to the population. An additional fixed health clinic was opened in Agweng 1st November 2004, after 8 months of mobile clinics. Apala camp is currently being served by a mobile clinic, but fixed services are planned before the end of November.

Clinics concentrate on addressing malaria, acute diseases and malnutrition, particularly in children under 5 years and referral services have been established to TFC and hospital facilities in Lira town.

MSF has been running a 350 bed TFC in Lira town since February 2004. Water and sanitation activities have been undertaken by MSF in Pader Town Council, Aromo, Agweng, Apala and Aloi as well as other camps not included in this survey.

Objectives

A health survey was conducted across clinic sites with the objective of determining baseline health and nutritional indicators upon which to direct program decisions and raise awareness of the plight of the internally displaced population.

1. Establish baseline population health and nutrition indicators
2. Determine crude and under 5 mortality rates
3. Determine main causes of morbidity and mortality
4. Gain insight into health seeking behaviours
5. Assess exposure of the population to violence due to the insurgency
6. Assess household food security and coping mechanisms
7. Determine the prevalence of malnutrition in children aged 6-59 months
8. Quantify access to protected water sources and amount of time spent collecting water
9. Determine coverage of sanitation facilities
10. Assess protection issues within the camp

Methodology

Six camps were included in the survey.

Aloi – 30,591

Aromo – 18,304

Amugo – 17,787

Agweng – 21,477

Apala – 18,000

Pader – 24,000

Total population – 130,159¹

The sample size was calculated on expected prevalence at 50% and error of 5%, with adjustment for cluster sampling technique, a total of 770 households were required.

Due to the differences between the 6 locations included in the survey, it was decided to sample based on site and not weighted for population. Therefore, 133 households were required from each site as minimum sample.

Camps are established in a very scattered arrangement, not allowing for random sampling, therefore, cluster sampling method was used as per MSF guidelines.

The survey team included 9 surveyors, one national staff supervisor and one expatriate supervisor conducting the household surveys, and two expatriate staff conducting focus group discussions.

Training was conducted with a team of surveyors based in Lira who travelled to each site, and occasionally stayed overnight as required by security and travel time. The questionnaire was developed using questions from other surveys (that had been used and validated by other organisations in Northern Uganda) wherever possible and piloted in the urban camps in Lira. The survey was modified after the initial pilot in order to ensure clarity of some questions and then retested before and after training of the survey team.

The survey should not be considered to be representative of all camps in Lira and Pader districts.

¹ These are approximate figures, mainly based on WFP's registration. In Lira there are constant population fluctuations, so it is very difficult to have exact population figures.

Results

1.0 Demographic data

Selected households were identified, given information about the survey and consent was obtained to continue. A total of 892 households were surveyed, with women most commonly interviewed (76%). The average age of the respondent was 33, with no significant differences between sites.

Table 1 Interviewee age and sex

Site	Average age	Male	%	Female	%	Total
Aloi	36	32	21%	118	79%	150
Amugo	33	33	24%	104	76%	137
Aromo	31	50	36%	87	64%	137
Agweng	34	42	26%	118	74%	160
Apala	34	36	25%	108	75%	144
Pader	30	19	12%	145	88%	164
Total	33	212	24%	680	76%	892

Overall, all households, except 3, residing in the camps were displaced from their place of origin directly related to insecurity. Of the 3 households not displaced due to insecurity, one left due to work transfer, one for economic reasons, and one household was already residing in camp location.

Table 2 Reason for leaving

Site	Insecurity	% left due to insecurity	Other
Aloi	150	100%	0
Amugo	137	100%	0
Aromo	136	99%	1
Agweng	160	100%	0
Apala	143	99%	1
Pader	163	99%	1
Total	957	100%	3

A significant number of households reported to be headed by women, representing 25% of total households interviewed.

Table 3 Head of the household

Site	Male	%	Female	%	Child	Total
Aloi	117	78%	33	22%	0	150
Amugo	76	55%	61	45%	0	137
Aromo	107	78%	29	21%	1	137
Agweng	104	65%	56	35%	0	160
Apala	116	81%	28	19%	0	144
Pader	146	89%	18	11%	0	164
Total	666	75%	225	25%	1	892

Living space

The population density in the camps is such that there is an average of 5 persons per dwelling, with an average tukul being 6m², which gives each person only 1m², again, well below the minimum standard of 3.5 m²/person. Such overcrowding not only allows for the rapid spread of communicable diseases, but also adds to the overall misery of camp life.

Table 4 Head of household information

Site	Pregnant	%	Lactating	%	Dwellings	Total households	Total population	Average no. persons per dwelling
Aloi	14	2%	80	9%	164	150	917	5.6
Amugo	26	3%	57	7%	153	137	808	5.3
Aromo	25	3%	58	8%	153	137	726	4.7
Agweng	21	2%	84	8%	187	160	1000	5.3
Apala	9	1%	65	8%	180	144	800	4.4
Pader	25	3%	99	10%	194	164	1000	5.2
Total	120	2%	443	8%	1031	892	5251	5.1

2.0 Health

2.1 Mortality

Access to basic health services within the camp is limited. In Pader Town Council, the District Health Services are running a health centre that has been clearly overwhelmed by the needs and is not in a position to provide emergency or referral services. In Lira, Ministry of Health staff evacuated from rural sites, and have not yet returned bar for sporadic mobile clinics. In all camps surveyed MSF has been running fixed/ mobile clinics since;

Aloi -February
Apala - March
Agweng - March
Aromo - May
Amugu - July
Pader -August

Given the massive population influx into the camps, access to basic health services is grossly insufficient.

The mortality rate was assessed by number of deaths within the household over the previous month. Crude mortality rate across the sites is 2.79/10,000/day, with a range of 2 – 4.33/10,000/day. This rate is classified as an emergency out of control. The mortality rate for the under 5 population is even more alarming, at 5.4/10,000/day across sites.

Agweng camp has the highest rate of both crude and under 5 mortality. These figures are further confirmed by a mortality investigation by MSF in the last week of October 2004 of 8 reported deaths, in which 6 were confirmed over a 6-day period. The deaths were not found to be due to diseases of outbreak potential.

These staggering death rates are largely attributable to malaria, with households reporting fever in 34% of the deaths and diarrhoea accounted for 20% of deaths. These deaths, due to in principle easily preventable and curable diseases, are a direct reflection on the water and sanitation conditions, and lack of access to health services within the camps and heightened vulnerability due to poor nutrition and trauma.

MSF has also observed the effects of exposure to high levels of trauma on health seeking behaviours. Meeting basic needs for survival coupled with stress and depression, a head of household may prioritise collecting food before to taking a sick child to the clinic.

A high mortality rate is expected in the emergency phase of mass population displacement. These critical rates are completely unacceptable at this time, more than one year since the camps were established in Lira, and 2 years in Pader.

Table 5 Mortality data

Site	Pop <5	<5deaths	U5M /10,000/day	Total pop	Total deaths	CMR /10,000/day
Aloi	205	2	3.25	924	10	3.61
Agweng	223	7	10.46	1000	13	4.33
Apala	179	3	5.59	800	5	2.08
Amugo	199	3	5.03	808	5	2.06
Aromo	177	1	1.88	726	5	2.30
Pader	252	4	5.29	1000	6	2.00
Total	1235	20	5.40	5258	44	2.79

Table 6 Cause of death

Cause of death	<5years		>5years		Total	%
	Male	Female	Male	Female		
Respiratory	1	1	1	3	6	14%
Fever/ malaria	4	5	3	3	15	34%
Diarrhoea	1	3	4	1	9	20%
Other	3	2	6	3	14	32%
Total	9	11	14	10	44	
	20 (45%)		24 (55%)			

Figure 1. Cause of Mortality <5yrs

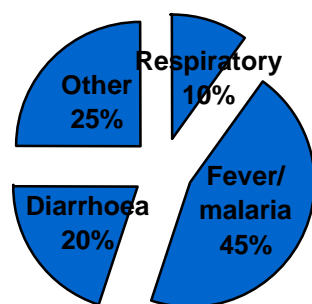
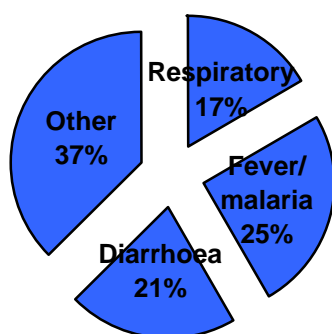


Figure 2. Cause of Mortality >5yrs



2.2 Morbidity

A high rate of morbidity was observed, with 15% of sampled population reporting illness in the previous month. Malaria remains the clear leading cause of morbidity, accounting for 47% overall, and 51% of under 5 morbidity. Respiratory disease accounted for 28% and diarrhoea for 21% of morbidity.

Table 7 Cause of morbidity

	<5					>5					Total	
	Male		Female		%<5	Male		Female		%>5		
Diarrhoea	58	34%	47	28%	23%	29	17%	35	21%	20%	169	21%
Fever	130	35%	106	28%	51%	59	16%	79	21%	43%	374	47%
Respiratory	69	32%	49	22%	25%	49	22%	51	23%	31%	218	28%
Trauma - accident	0	0%	2	40%	0%	0	0%	3	60%	1%	5	1%
Trauma - war related	0	0%	0	0%	0%	2	100%	0	0%	1%	2	0%
Other	2	9%	3	14%	1%	3	14%	14	64%	5%	22	3%
Total	259	33%	207	26%		142	18%	182	23%		790	
	466					324						

Figure 3. Cause of Morbidity <5yrs

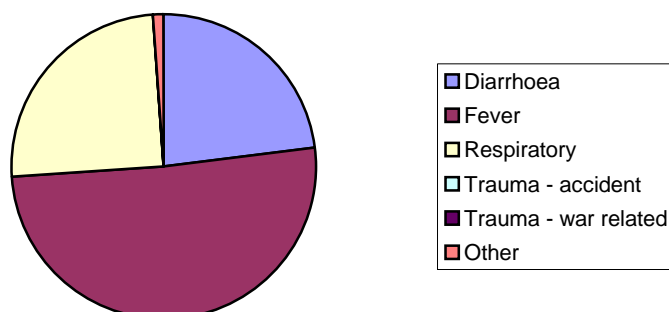
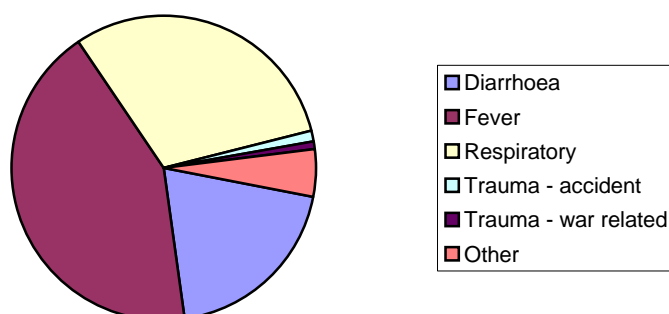


Figure 4. Cause of Morbidity >5yrs



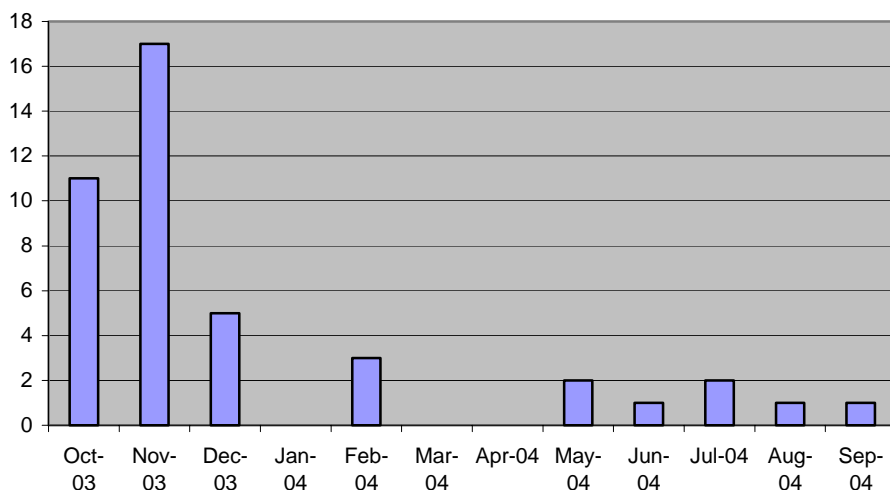
2.3 Mortality related to the insurgency

Households were asked as to whether a member of their household had been killed directly related to the insurgency in the past year. A total to 43 deaths were reported. Although the peak of violence is clearly seen in November 2003, it has not stopped.

In Lira, the population within the rural camps has significantly increased over the past few months with the movement out of the urban camps. As people move to rural camps, closer to their original home, in the hope that they will be able to access their fields during the day and return to the camp at night.

Patterns of mortality related to insurgency do not differ between Pader and Lira districts, with deaths continuing throughout the year in both districts.

Figure 5. Household death directly due to the insurgency within the previous year



3.0 Nutrition

3.1 Household food security

Household food security was assessed by asking for how many days do you currently have food in your household? This answer was verified by the interviewer directly observing household food supplies.

Table 8 Household food security

Amount of food currently in household	Aloi	Amugo	Aromo	Agweng	Apala	Pader	Total	%
Nothing	14	16	1	7	15	17	70	8%
For today only	88	48	92	128	95	50	501	56%
For 2-4 days	28	26	35	19	20	55	183	21%
For 5-10 days	18	34	4	5	10	36	107	12%
Longer	2	13	5	1	4	5	30	3%

In Lira, people living in rural camps are supposed to get 50% of the total daily caloric requirements through a monthly general food distribution. In some camps, distributions are only received every 2 months, bringing the ration down to 25%.

In Pader, WFP recently increased the ration to 80% of total daily caloric requirements due to proven difficulties in accessing any land to cultivate. Despite this increase, the foodsecurity situation remains precarious.

Given ongoing problems to access their own land (see table below), households are incredibly vulnerable, with 8% of households having no food, and 56% having enough food for today only.

Table 9 Access to gardens

Access to gardens	Aloi		Amugo		Aromo		Agweng		Apala		Pader		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
No access	136	91%	84	61%	105	77%	149	93%	137	95%	149	91%	760	85%
Access	14	9%	52	38%	32	23%	11	7%	7	5%	15	9%	131	15%

Lira total access to fields 15%

Pader total access to fields 9%

When asked an open question on the worst thing about living in the camp, 70% of total respondents stated lack of food or hunger.

3.2 Anthropometric assessment

Children aged 6-59 months within the selected households had weight, height and mid-upper arm circumference measured, and assessed for bilateral lower leg oedema. Weight for height as a percentage of the median was calculated for each child. Overall, the rate of global acute malnutrition was found to be 8.28% [95% CI 6.53-10.03%], and severe acute malnutrition 4.40% [95% CI 3.13-5.68%].

Table 10 Nutritional status of children 6-59 months by IDP camp

	<70% W/H	%	70-80% W/H	%	>80%W/H	%	Oedema	%	Total
Aloi	2	1.2%	3	1.8%	161	94.7%	4	2.4%	170
Amugo	1	0.7%	3	2.0%	144	95.4%	3	2.0%	151
Aromo	1	0.7%	7	5.2%	121	89.6%	6	4.4%	135
Agweng	7	4.3%	12	7.5%	138	85.7%	4	2.5%	161
Apala	3	2.1%	6	4.2%	128	90.1%	5	3.5%	142
Pader	1	0.5%	6	3.1%	183	93.8%	5	2.6%	195
Total	15	1.6%	37	3.9%	875	91.7%	27	2.8%	954

The rate of severe malnutrition indicates an emergency situation, and global (combined severe and moderate) indicates an alert threshold. The high rate of bilateral lower leg oedema is supported by TFC admission data, with the majority of children admitted being kwashiorkor rather than marasmic malnutrition.

Table 11 Nutritional Summary

	Severe Acute Malnutrition (<70% W/H + Oedema)	95% CI	Global Acute Malnutrition (<80% W/H + Oedema)	95% CI
Aloi	3.53%	2.75%	5.29%	3.37%
Amugo	2.65%	2.54%	4.64%	3.35%
Aromo	5.19%	3.64%	10.37%	5.14%
Agweng	6.83%	3.74%	14.29%	5.41%
Apala	5.63%	3.71%	9.86%	4.90%
Pader	3.08%	2.39%	6.15%	3.37%
Total	4.40%	1.28%	8.28%	1.75%

Considering the population under survey has access to MSF supplementary and therapeutic feeding centres, these results remain disappointingly high and are likely to be due to aggravating factors such as minimal household food supplies and very limited capacity to supplement food rations.

4.0 Water and Sanitation

In the event of population displacement, ensuring access to minimum quantities of safe drinking water is one of the top priorities. The proportion of households accessing clean water under the surveyed population remains inadequate with 21% collecting water from unprotected sources.

Table 12 Water sources utilised

Water source	Aloi	Aromo	Amugu	Agweng	Apala	Pader	Total	%
Hand pump	40	56	46	85	122	86	435	49%
Protected spring	25	50	85	67	20	1	248	28%
Unprotected spring	39	5	3	7	1	52	107	12%
Shallow well	46	22	0	1	1	6	76	9%
Rain water harvesting	0	0	0	0	0	19	19	2%

Not only is access to protected water limited, the population is required to spend considerable time in the process of collecting water. In addition to being concerned daily with food for the household, this is a further burden on the population that requires urgent attention. Water boards have been established and actually charge money for access to hand pumps.

Table 13 Access to water

	Average time to walk to water source in mins	Average # times/day	Average mins spent waiting at water source	Amount of water collected average L/person/day	% population charged for water
Aloi	49	2.1	122	8.0	14.0%
Amugo	29	2.7	88	8.5	14.6%
Aromo	29	1.6	183	5.8	15.3%
Agweng	22	2.5	116	8.5	0.0%
Apala	11	1.8	177	6.6	2.8%
Pader	21	1.8	224	7.2	41.5%
Total	27	2.1	151	7.5	15%

The results of the survey show the average amount of water per person per day (7.5L) to be less than half that which is established as a minimum standard (20L), and this is after sizeable interventions from MSF and other actors.

After the installation of more than a thousand latrines by MSF, the sanitation indicators also remain below benchmarks, with 21% of households interviewed defecating in the bush.

Table 14 Latrine usage

	% households using latrine	% households required to pay for use of latrine
Aloi	89.3%	11.3%
Amugo	65.7%	7.3%
Aromo	80.3%	5.1%
Agweng	93.1%	5.6%
Apala	82.6%	13.9%
Pader	61.6%	15.2%
Total	78.8%	9.7%

Both the water and sanitation conditions within the camp presents yet another risk factor for poor health outcomes and outbreaks of water borne disease.

Despite a significant improvement on all indicators since early 2003, the situation remains appalling.

5.0 Protection

Of great concern is the finding that 56% of households did not feel safe within the camp. Respondents were asked an open question of why they did not feel safe, with several categories identified. While the majority of households continued to fear the LRA (88%), fear of armed forces, disease outbreak and famine were also mentioned.

Using a latrine at night was also associated with fear in 39% of households. Again, an open question of “why” revealed serious protection issues that require attention. Respondents from Pader district accounted for 38% all households not feeling safe to use a latrine at night.

Table 15 Insecurity within the camps

	% do not feel safe in the camp	% do not feel safe using a latrine at night	% do not feel safe to go outside the camp to dig or collect water
Aloi	42%	19%	54%
Amugo	42%	35%	56%
Aromo	61%	45%	48%
Agweng	56%	36%	58%
Apala	68%	28%	85%
Pader	70%	69%	84%
Total	56%	39%	64%

Table 16 Reasons for not feeling safe in the camp

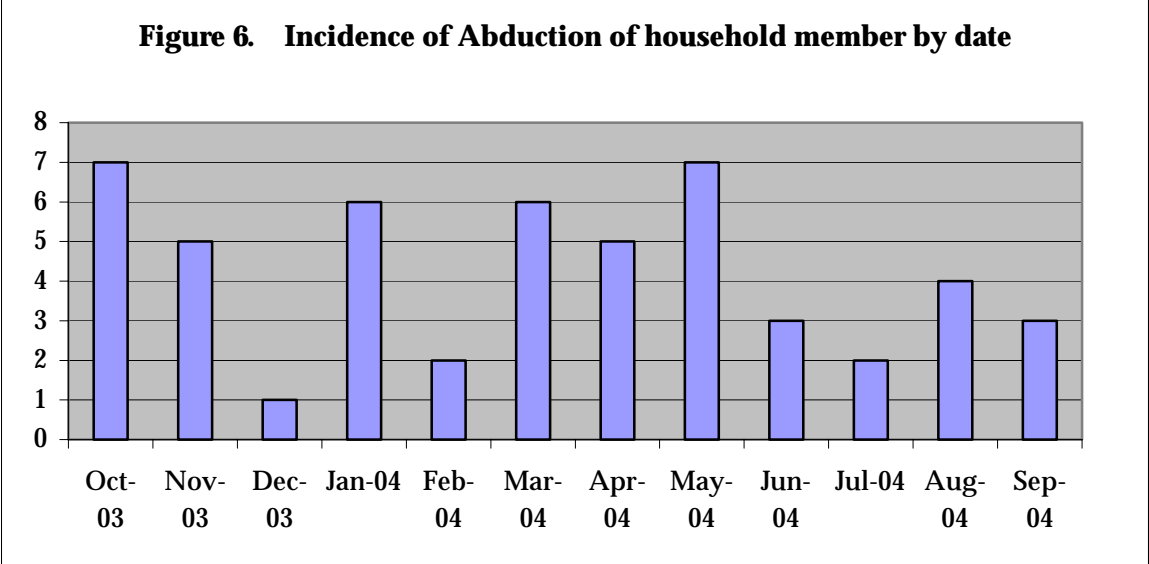
Reason	n	%
Fear of LRA	443	88%
Fear of UPDF	7	1%
Fear of Militia	2	0%
Fear of Karamajong	3	1%
Fear of LRA and Karamajong	12	2%
General insecurity	8	2%
Fear of disease outbreak	12	2%
Fear of famine	6	1%
Reason not stated	12	2%

Table 17 Reason for not feeling safe using a latrine at night

Reason	n	%
Fear of LRA	91	31%
Fear of UPDF	30	10%
Fear of Militia	5	2%
Fear of UPDF and Militia	8	3%
General insecurity	5	2%
Camp rule not allowed to move at night	59	20%
Other	44	15%
Reason not stated	56	19%

* Strict curfew in Pader town

Fifty-one abductions within the household were reported to have occurred in the previous year. Again, the incidence appears to have dropped in the second half of 2004, but remains present. Pader district represents 25% of total abductions, but the pattern of incidence does not differ.



6.0 Future plans

For planning purposes, MSF was interested to find out if people would return home immediately should the security situation normalize.

It was interesting to discover a significant proportion of households planned to wait in current location if the war finished tomorrow. Security was the main issue, with many households requiring confirmation that others had already returned and declared the area safe. Others said they would wait for assistance as their home villages had been burnt, and food security issues such as tools for digging.

Of interest, was the marked difference in responses from Lira and Pader districts.

Table 16 What would you do if the war finished tomorrow?

	Go home immediately	Wait	Stay in location
Aloi	25.3%	70.7%	3.3%
Amugo	35.8%	59.9%	4.4%
Aromo	17.5%	63.5%	19.0%
Agweng	13.1%	74.4%	12.5%
Apala	24.3%	70.8%	4.9%
Pader	61.0%	37.2%	1.8%

Conclusion

Population health and nutrition indicators compared to international benchmarks signify the continued 'emergency phase' in the camps. These results would be worrying at the peak of displacement, that they reflect the situation of today, months and years after the displacement, is totally unacceptable.

It is no surprise that the threat of death remains so high in the camps with such poor coverage of essential services. Immediate action is required to prevent further suffering and death within the displaced camps in Northern Uganda.